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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,646	04/14/2004	Hyun-gyoo Yook	Q80014	4914
23373 7590 09/17/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
TRAN, PHILIP B				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/823,646

Applicant(s)

YOOK ET AL.

Examiner

Philip B. Tran

Art Unit

2455

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 10/5/06 & 7/6/09

DETAILED ACTION

Drawings

1. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Noguchi et al (Hereafter, Noguchi), U.S. Pat. No. 7,076,550.

Regarding claim 1, Noguchi teaches a cooperative work service management apparatus comprising a negotiator module for determining cooperative work service roles of devices connected to a network, through a predetermined election algorithm, so

that a cooperative work service can be performed among the devices by using descriptions collected from the devices, and controlling operations of the devices according to the determined cooperative work service roles to process a control command transmitted from a control device connected to the network (i.e., interpretation unit for recognizing that new apparatus has been connected to the network of cooperative work service and interpreting the functional information of the new apparatus) [see Abstract and Col. 2, Lines 34-47 and Col. 3, Lines 25-56].

Regarding claim 2, Noguchi teaches a cooperative work service management apparatus, comprising: a coordinator module for one of directly performing a control command transmitted from a control device present in a network having devices connected thereto and transmitting the control command to other devices so as to control operations of the other devices, according to descriptions collected from the devices connected to the network and cooperative work service roles determined through a predetermined algorithm (i.e., interface unit for notifying the other network connection apparatus connected to the network of the information of its own apparatus stored in the information storing unit and controlling the input/output relationship regarding the cooperative service that can be realized in combination with the functions of a plurality of apparatus according to definition/service-related description) [see Col. 2, Lines 44-47 and Col. 11, Line 51 to Col. 12, Line 21].

Regarding claim 3, Noguchi teaches a cooperative work service management apparatus, comprising: a supporter module for receiving a control command of a control device, transmitted from a coordinator module present in a network to provide a service corresponding to the control command, according to descriptions collected from devices connected to the network and cooperative work service roles determined through a predetermined algorithm (i.e., function storage unit for storing the service definition information defining the service by the input/output relationship and service-related description relating to cooperative service that can be provided in cooperation with the other apparatus connected in the network) [see Col. 4, Lines 8-29 and Col. 9, Lines 38-50].

Regarding claim 4, Noguchi teaches a cooperative work service management apparatus, comprising:

a negotiator module for determining cooperative work service roles of devices connected to a network through a predetermined election algorithm so that a cooperative work service can be performed among the devices by using descriptions collected from the devices (i.e., interpretation unit for recognizing that new apparatus has been connected to the network of cooperative work service and interpreting the functional information of the new apparatus) [see Abstract and Col. 2, Lines 34-47 and Col. 3, Lines 25-56]; and

a coordinator module for one of directly performing a control command transmitted from a control device present in the network and transmitting the control

command to other devices, so as to control the operations of the devices (i.e., interface unit for notifying the other network connection apparatus connected to the network of the information of its own apparatus stored in the information storing unit and controlling the input/output relationship regarding the cooperative service that can be realized in combination with the functions of a plurality of apparatus according to definition/service-related description) [see Col. 2, Lines 44-47 and Col. 11, Line 51 to Col. 12, Line 21].

Regarding claim 5, Noguchi further teaches the cooperative work service management apparatus as claimed in claim 4, further comprising a supporter module for receiving the control command transmitted from the coordinator module to provide a service corresponding to the control command (i.e., function storage unit for storing the service definition information defining the service by the input/output relationship and service-related description relating to cooperative service that can be provided in cooperation with the other apparatus connected in the network) [see Col. 4, Lines 8-29 and Col. 9, Lines 38-50].

Regarding claim 6, Noguchi further teaches the cooperative work service management apparatus as claimed in claim 4, wherein if the cooperative work service roles are determined through the election algorithm, the negotiator module sets the determined cooperative work service roles into a description of a relevant device so that the cooperative work service can be performed among the devices [see Col. 11, Line 51 to Col. 12, Line 21].

Regarding claim 7, Noguchi further teaches the cooperative work service management apparatus as claimed in claim 4, wherein the election algorithm is written in a predetermined programming language, which serves to coordinate the cooperative work service roles of the devices so that consistency in the same services can be maintained according to a function of service to be provided through the cooperative work service by using the descriptions provided from the devices present in the network [see Figs. 3-5 & 14-15].

Claim 8 is rejected under the same rationale set forth above to claim 4.

Claim 9 is rejected under the same rationale set forth above to claim 5.

Claim 10 is rejected under the same rationale set forth above to claim 6.

Claim 11 is rejected under the same rationale set forth above to claim 7.

Regarding claim 12, Noguchi teaches a home network system for cooperative work service, comprising:

- a plurality of devices connected to a network [see Fig. 8];

- a negotiator module connected to the plurality of devices, for determining cooperative work service roles of the plurality of devices by applying device descriptions collected from the plurality of devices to a predetermined election algorithm so that the cooperative work service can be performed in consideration of a function of a corresponding device (i.e., interpretation unit for recognizing that new apparatus has

been connected to the network of cooperative work service and interpreting the functional information of the new apparatus) [see Abstract and Col. 2, Lines 34-47 and Col. 3, Lines 25-56]; and

a coordinator module for directly performing a control command transmitted from a control device according to the cooperative work service roles determined by the negotiator module (i.e., interface unit for notifying the other network connection apparatus connected to the network of the information of its own apparatus stored in the information storing unit and controlling the input/output relationship regarding the cooperative service that can be realized in combination with the functions of a plurality of apparatus according to definition/service-related description) [see Col. 2, Lines 44-47 and Col. 11, Line 51 to Col. 12, Line 21].

Claim 13 is rejected under the same rationale set forth above to claim 5.

Regarding claim 14, Noguchi further teaches the home network system as claimed in claim 12, further comprising a supporter module, wherein the supporter module is provided in a device, to which the supporter module belongs, among the plurality of devices connected to the network (i.e., function storage unit 14 belongs to scanner 1, function storage unit 24 belongs to printer 2) [see Fig. 8].

Regarding claim 15, Noguchi further teaches the home network system as claimed in claim 12, further comprising a supporter module, wherein the supporter

module is provided in a device, to which the supporter module does not belong, among the plurality of devices connected to the network (i.e., function storage unit 14 does not belong to printer 2 and function storage unit 24 does not belong to scanner 1) [see Fig. 8].

Claim 16 is rejected under the same rationale set forth above to claim 6.

Claim 17 is rejected under the same rationale set forth above to claim 7.

Regarding claim 18, Noguchi teaches a recordable storage medium, comprising:
a negotiator module for determining cooperative work service roles of devices connected to a network through a predetermined election algorithm so that a cooperative work service among the devices can be performed by using descriptions collected from the devices (i.e., interpretation unit for recognizing that new apparatus has been connected to the network of cooperative work service and interpreting the functional information of the new apparatus) [see Abstract and Col. 2, Lines 34-47 and Col. 3, Lines 25-56];

a supporter module for performing operations of the devices according to the cooperative work service roles determined by the negotiator module (i.e., function storage unit for storing the service definition information defining the service by the input/output relationship and service-related description relating to cooperative service that can be provided in cooperation with the other apparatus connected in the network) [see Col. 4, Lines 8-29 and Col. 9, Lines 38-50]; and

a coordinator module for one of directly performing a control command transmitted from a control device and transmitting the control command to the supporter module to process the control command (i.e., interface unit for notifying the other network connection apparatus connected to the network of the information of its own apparatus stored in the information storing unit and controlling the input/output relationship regarding the cooperative service that can be realized in combination with the functions of a plurality of apparatus according to definition/service-related description) [see Col. 2, Lines 44-47 and Col. 11, Line 51 to Col. 12, Line 21].

Claim 19 is rejected under the same rationale set forth above to claim 6.

Claim 20 is rejected under the same rationale set forth above to claim 7.

Regarding claim 21, Noguchi teaches a cooperative work service method, comprising:

causing a cooperative work service to inform other cooperative work services connected to a network of a presence of said cooperative work service and to exchange service descriptions with cooperative work services having the same service functions, and determining a role of the cooperative work service by using the provided service descriptions and a predetermined election algorithm (i.e., recognizing that new apparatus has been connected to the network of cooperative work service and interpreting the functional information of the new apparatus) [see Abstract and Col. 2, Lines 34-47 and Col. 3, Lines 25-56]; and

selectively executing one of a coordinator module (i.e., notifying the other network connection apparatus connected to the network of the information of its own apparatus stored in the information storing unit and controlling the input/output relationship regarding the cooperative service that can be realized in combination with the functions of a plurality of apparatus according to definition/service-related description) [see Col. 2, Lines 44-47 and Col. 11, Line 51 to Col. 12, Line 21] and a supporter module according to the determined role (i.e., storing the service definition information defining the service by the input/output relationship and service-related description relating to cooperative service that can be provided in cooperation with the other apparatus connected in the network) [see Col. 4, Lines 8-29 and Col. 9, Lines 38-50].

Regarding claim 22, Noguchi further teaches the cooperative work service method as claimed in claim 21, further comprising causing the coordinator module to request the supporter module connected to the network for a service according to a control command sent by a control device and to receive a response from the supporter module, and causing the supporter module to inform the coordinator module connected to the network of an event message generated according to the control command and to receive a response from the coordinator module [see Fig. 8 and Abstract and Col. 13, Lines 14-53].

Claim 23 is rejected under the same rationale set forth above to claim 7.

Regarding claim 24, Noguchi further teaches the cooperative work service method as claimed in claim 23, wherein a process of coordinating the cooperative work service roles of the devices comprises determining, through a discovery-advertisement process for informing other devices present in the network of the presence of each device, whether other cooperative work services exist, and determining a cooperative work service role of each device as a coordinator if it is determined that there are no said other cooperative work services, and collecting the service descriptions from the same cooperative work services and determining whether the cooperative work service role of said each device was a coordinator if it is determined that there are said other cooperative work services, and then, establishing the cooperative work service role as the coordinator if the cooperative work service role was a coordinator, and establishing the cooperative work service role as a supporter if the cooperative work service role was not a coordinator [see Fig. 8 and Col. 2, Lines 34-47 and Col. 3, Lines 25-56 and Col. 4, Lines 8-29 and Col. 9, Lines 38-50 and Col. 13, Lines 14-53].

Regarding claim 25, Noguchi further teaches the cooperative work service method as claimed in claim 23, wherein the determined cooperative work service role is a coordinator for one of directly receiving and performing a control command transmitted from a control device present in the network, and transmitting a control command to other devices, to control the operations of the devices (i.e., notifying the other network connection apparatus connected to the network of the information of its

own apparatus stored in the information storing unit and controlling the input/output relationship regarding the cooperative service that can be realized in combination with the functions of a plurality of apparatus according to definition/service-related description) [see Col. 2, Lines 44-47 and Col. 11, Line 51 to Col. 12, Line 21].

Regarding claim 26, Noguchi further teaches the cooperative work service method as claimed in claim 23, wherein the determined cooperative work service role is a supporter for one of processing a control command transmitted from a device which performs the coordinator role and resides on the network and providing services corresponding to the control command (i.e., storing the service definition information defining the service by the input/output relationship and service-related description relating to cooperative service that can be provided in cooperation with the other apparatus connected in the network) [see Col. 4, Lines 8-29 and Col. 9, Lines 38-50].

Regarding claim 27, Noguchi teaches a cooperative work service management apparatus, comprising: a negotiator module for determining whether a service providing unit, which performs a specific service within a device, to which the negotiator module belongs, according to a control command transmitted from a control device, should be activated, so that a cooperative work service among devices can be performed by using descriptions collected from the devices connected to a network (i.e., interpretation unit for recognizing that new apparatus has been connected to the network of cooperative work service and interpreting the functional information of the new apparatus and

realizing scanning /printing service) [see Fig. 8 and Abstract and Col. 2, Lines 34-47 and Col. 3, Lines 25-56].

Regarding claim 28, Noguchi teaches a home network apparatus, comprising:
a service providing unit connected to a network for providing a predetermined service (i.e., image capturing unit 15 for scanning service and image printing unit 25 for printing service) [see Fig. 8]; and
a negotiator module for determining whether the service providing unit within a device to which the negotiator module belongs should be activated, so that a cooperative work service among devices can be performed through device descriptions collected from the devices connected to the network (i.e., interpretation unit for recognizing that new apparatus has been connected to the network of cooperative work service and interpreting the functional information of the new apparatus) [see Abstract and Col. 2, Lines 34-47 and Col. 3, Lines 25-56].

Regarding claim 29, Noguchi teaches a home network system, comprising:
a plurality of devices connected to a network (i.e., scanner 1 and printer 2 are connected to a network 7) [see Fig. 8];
a service providing unit connected to each of the plurality of devices, for providing a predetermined service (i.e., image capturing unit 15 for scanning service and image printing unit 25 for printing service) [see Fig. 8]; and

a negotiator module for determining whether the service providing unit within a device to which the negotiator module belongs should be activated, so that a cooperative work service among the plurality of devices can be performed through device descriptions collected from the plurality of devices connected to the network (i.e., interpretation unit for recognizing that new apparatus has been connected to the network of cooperative work service and interpreting the functional information of the new apparatus) [see Abstract and Col. 2, Lines 34-47 and Col. 3, Lines 25-56].

Claim 30 is rejected under the same rationale set forth above to claim 21.

Other References Cited

4. The following references cited by the examiner but not relied upon are considered pertinent to applicant's disclosure.

- A) Iwakata, U.S. Pat. Application Pub. No. US 2002/0095299 A1.
- B) Yamaguchi, U.S. Pat. No. 7,035,900.
- C) Ramanathan, U.S. Pat. No. 6,286,047.
- D) Phan-Anh, U.S. Pat. No. 7,181,211.
- E) Jamison, U.S. Pat. Application Pub. No. US 2003/0212587

5. A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE THREE MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION. FAILURE TO RESPOND WITHIN THE PERIOD FOR RESPONSE WILL CAUSE THE APPLICATION TO BECOME ABANDONED (35 U.S.C. § 133). EXTENSIONS OF TIME MAY BE OBTAINED UNDER THE PROVISIONS OF 37 CAR 1.136(A).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (571) 272-3991. The Group fax phone number is (571) 273-8300. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar, can be reached on (571) 272-4006.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip B Tran/
Primary Examiner, Art Unit 2455
Sept 07, 2009

